

Job-Embedded Staff Development

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(First published in Fall Issue 2000 of Today's School: Shared Leadership in Education)

As a technology lead, you may be sitting there in front of your computer wondering how you are going to reach all of your teachers' goals for the use of technology. Yes, there may be some teachers that do not have technology goals. Now that many states have mandated that teachers will be expected to master technology skills and transfer these skills to their curriculum, we are seeing an escalation in funding for technology staff development programs. There are concerns from all sides on what and how to teach teachers so they use technology efficiently and appropriately so students are not just learning technology for technology's sake alone. This column will touch on the need for job-embedded staff development where it happens during the day in the classroom on the teacher's computer. This is called "just-in-time" learning.

I would like to share with you some research on adult learners and why some models will work and others will not. Do you ever wonder why it always seems to be the same 15-20% who are using technology, taking risks, going outside the box, attending conferences, and charging ahead? These same people charged ahead even before there was funding for technology? They are your cadre, mentors, and many of you. This is not to judge those that are not out in front with technology. There are reasons why some people charge ahead putting all concerns aside, and there are reasons why many are not.

Innovation, change and technology affect people in different ways. I don't know about you, but when I see new ideas on using technology with students, I want to learn more about it, try it, experiment with it, and then share it with others. I may not agree with it, but I like to give it a shot. Then, on the other end, there is the teacher who says "no" first before they even see it or try it. Now, it is easy to judge, but there is probably a good reason why teachers act this way. Many teachers like this teacher have seen innovations come and go and not work. They see technology sitting around, collecting dust, and being used for the wrong reasons. It is important to understand the nature of adult learners if you want your teachers to take advantage of the staff development opportunities you plan to provide for your teachers. We know that technology is not going away and is necessary to include in our students lives. Now we just have to convince many of our teachers.

Adult Learners

Adults progress through several stages as it pertains to any change or innovation (Hall and Hord, 1979). The first stage is awareness which is the stage I mentioned above: knowing about the technology but not concerned about it. The second stage is informational where a teacher may want to know more but still hesitant to jump in. The third stage is personal. This is where a teacher is using the technology for their own

personal use. They are interested in learning lots about the technology and how it can benefit them. From informal surveys and research, I have found there are almost 50-75% of the teachers at many schools in these three levels. Calculate the percentage at your school and remember this number for later in this column when I discuss specific strategies. The fourth stage is management. This stage is the teacher who is personally proficient with technology but has a real difficult time managing how they use technology. They have not taken the leap to integrating technology yet or just use technology to supplement the curriculum. The last three stages are consequence- how technology affects students; collaboration- sharing with others; and refocusing- teaching others. These last three are the 15-20% I mentioned before: the teachers willing to take risks. As staff developers, we can not judge a person's level or reaction to change, we just have to be aware of it and help design a program that will successfully reach the different learners.

Change is a process. Just because you provide training to a teacher does not assure that he/she will immediately begin to use these new skills. Change takes time. Change is a highly personal experience. Each teacher thinks, sees, feels about, and reacts to change in their own way.

Let's look a little closer at adult learners. (Smith, 1982)

Adults learn throughout their lives with some learning a little faster than others. Age has nothing to do with their ability to learn.

Adults, just like our students, present a variety of learning styles and learn in different ways at different times and for varying reasons.

Adults bring previous life experiences to each situation. Adults learn best when staff development is built upon past experiences.

Adults learn best when what they are learning is relevant to their situation.

Adults like to have control on what they learn, how they learn, and how they use what they learned.

Adults are problem-centered and use what they have learned to solve a particular problem or concern.

Adults learn best in a nonthreatening environment of reciprocal trust and have freedom to experiment, fail, and try again.

Adults need time to reflect how to apply their new knowledge and skills and review what worked and what did not work.

Even the more techie oriented teacher may find themselves needing time to reflect and learn how technology will work with their curriculum. I found myself a little nervous when I was told to learn Director in a short time, and then teach it. I didn't even know Director. How was I going to be able to teach it to others if I was not confident with my own knowledge of this program? I started looking at how I was reacting to Director

which seemed like a foreign language to me and thought, this must be what teachers new to technology or uncomfortable with technology must feel all the time when asked to use technology with their students.

Technology is different for different people. For some, it comes easy. Must be one of those intelligences that Gardner is talking about, or it may be the way certain brains work – hypertext is built in. Now there are many other people who just don't get it. You probably know who I'm writing about: the teacher who just can't seem to understand why you don't hit return at the end of a line. There could also be one big obstacle such as not being able to effectively use the mouse that keeps that one resistant teacher from jumping on board the technology wagon. Most teachers are not resistant to technology just to get you angry, but it may not seem that way when that one teacher fights everything you are trying to do.

Components of an Effective Program

So with the quick review above of the adult learner and the processes they go through to successfully understand and use a new concept, I have reviewed and adapted five components needed for an effective staff development program (adapted from Joyce and Showers, 1980 and Sparks, 1983):

1. Pre-assessment that defines the adult learners' needs and ways to meet those needs
2. Presentation of theory and demonstration of application or strategic models
3. Practice of application in simulation and actual settings
4. Discussion and feedback about performance
5. Coaching with follow-up support and ongoing collaboration

Now expand the five components to an effective technology staff development program:

Provide a thorough needs assessment for the teacher that includes personal and professional information about technology use plus information and vision about the use of technology at the school and as part of the student program.

Collect and compile data to provide an individual learning plan for each teacher that is actually a roadmap on how to reach their goals to become a proficient technology user and integrator.

Collect and compile data from the school information that helps design an action plan that drives the staff development program. Use data about the student program and any gaps in student achievement as foundation for your program.

At different points during the program, provide models of exemplary practice, demonstrate the process, and discuss challenges and opportunities to replicate or adapt these models in teacher's classrooms.

Provide a variety of learning opportunities and adequate resources that allow teachers to reach the goals in their individual learning plan.

Provide opportunities where a coach or mentor observes the classroom dynamics, offers suggestions, models an activity, provides one-on-one support and gives ongoing feedback.

Provide opportunities on a regular basis for collaboration online and face-to-face for teachers to ask questions, discuss problems and solutions, and to share ideas.

To be successful with taking technology to the next step: integration, teachers go through a process of scaffolding knowledge and skills. If we look at student needs and design the program around curricular goals, we may want to look at an inquiry-based model used with Bloom's Taxonomy (Bloom, 1956- online 2000):

Knowledge	understanding the basics or maybe goal setting	Who, what, when, where, how...?
Comprehension	doing research or asking an expert for understanding	Can you interpret or describe...?
Application	experimenting and applying	How is this related to...?
Analysis	problem-solving and decision-making	How does this compare/contrast with...?
Synthesis	communicating ideas	What would you predict/infer from..?
Evaluation	evaluating content and presentation	Do you agree.. and what is the most important...?

The inquiry-based model works with both teachers and students, but this approach encourages problem-based action research. This approach takes time to learn and time to implement. A teacher can go to a camp or institute to learn these strategies and skills, but follow-up support and collaboration are essential to keep the program going. On-site coaching and time for sharing provide a learning community where teachers have a feeling of ownership for what they and their students are learning. Watching this happen is exciting for me as a staff developer. I'm sure you have had the same experience- where a teacher can not wait to show you results or post the project.

To make these theories work, the main goal is to improve student achievement and define how technology can support the student program. What I am suggesting is a holistic approach to staff development. You can send teachers off to an institute, conference or two-week training session, but there has to be a tie in to the five components, learning process, and content that is relevant to the student program. An effective program provides just-in-time opportunities for teachers instead of just-in-case workshops (Thornburg, 1998). These workshops still can fit into the picture, but they can not be the only approach for the majority of teachers out there.

So back to the percentage of teachers at your school who are using technology for personal use only or not using technology at all. Is this a program that will reach them? Providing a needs assessment and job-embedded staff development where teachers can voice their concerns in a nonthreatening environment will make them feel this is a place where they can learn, where they might be able to take some risks and even fail. This is new to many teachers who have been in the system a long time. Let's take some risks and try. We need to offer on-site support, hand-holding, and encouragement as part of the school community. From this kind of learning community, teachers will use technology appropriately which will only result in students winning and reaching their goals.

Resources

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